Serial No. 10/660,563
January 18, 2005
Reply to the Office Action dated September 15, 2004
Page 7 of 10

## REMARKS/ARGUMENTS

Claims 1-20 are pending in this application. By this Amendment, Applicant amends the specification and claims 1 and 11-13.

The specification was objected to for containing a minor informality. Applicant has amended the specification as suggested by the Examiner. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this objection.

Claim 13 was objected to for containing a minor informality. Applicant has amended claim 13 as suggested by the Examiner. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this objection.

Claims 1-20 were rejected under 35 U.S.C. § 112, first and/or second paragraph, for allegedly failing to comply with the written description requirement. Particularly, the Examiner alleged that the meaning of the recitation of "both ends free in the thickness direction Y of the vibrating bodies" is not clear. Although Applicant disagrees with the Examiner, in order to expedite prosecution, Applicant has amended the paragraph bridging pages 6 and 7 of the specification and claim 1 to recite that both ends are "movable" instead of "free." As clearly seen in Fig. 4C, both ends of the vibrator 4 are movable in the thickness direction. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

Claims 7, 11, and 12 were rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite.

With respect to claim 7, the Examiner alleged that an arrangement in which the magnitude of the secondary bending vibration is detected by separated electrodes on the outside surface of one vibrating body and a fully extended electrode on the outside of the other vibrating body is not illustrated in the drawings. The Examiner further alleges that "the drawings do not show the differential circuit 14 connected to a separated electrode on one outside surface and a fully extended electrode on the other outside surface." Applicant respectfully disagrees.

As clearly seen in Fig. 9 of the present invention, the differential circuit 14 is connected to the separated electrodes 26 and 27 and to the fully extended electrode 28.

Serial No. 10/660,563 January 18, 2005 Reply to the Office Action dated September 15, 2004 Page 8 of 10

Thus, Applicant respectfully submits that the arrangement recited in claim 7 is clearly shown in Fig. 9. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 7.

Applicant has amended claims 11 and 12 to correct the informalities noted by the Examiner. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 11 and 12.

Claims 1, 2, 4-6, 8, 9, 12, 13, 17 and 18 were rejected under 35 U.S.C. § 102(b) as being anticipated by Fujimoto (JP 8-292033 and JP 10-307029). Claims 1-3, 5, 6, 9-11 and 15-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ishitoko et al. (U.S. 6,281,618). Claim 14, 19 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ishitoko et al. Applicant respectfully traverses the rejections of claims 1-20.

Claim 1 has been amended to recite:

"A vibrating gyroscope comprising:

a substrate:

a vibrator including at least a pair of vibrating bodies, in which both end portions in a longitudinal direction are fixed together in the width direction by intermediate parts, and the vibrator is constructed such that a secondary bending vibration with both ends movable in a thickness direction of the vibrating bodies is generated;

a driver making the vibrating bodies generate buckling vibrations in opposite directions relative to each other; and a detector for detecting the magnitude of the secondary bending vibration of the vibrator; wherein

the resonance frequency of the secondary bending vibration is close to the resonance frequency of the buckling vibration; and

the vibrator is arranged such that major surfaces of the at least a pair of vibrating bodies extend in a plane that is substantially perpendicular to a major surface of the substrate." (emphasis added)

The Examiner alleged that Fujimoto (JP 8-292033 and JP 10-307029) teaches all of the features recited in claim 1. However, as clearly seen in Figs. 3, 4, 8 and 9 of Fujimoto '033 and in Figs. 5 and 6 of '029, both ends of the vibrator are <u>fixed</u> in the

Serial No. 10/660,563 January 18, 2005 Reply to the Office Action dated September 15, 2004 Page 9 of 10

thickness direction thereof by the supports, which are attached to both ends of the vibrator, and neither end of the vibrator is <u>movable</u>. Thus, Fujimoto (JP 8-292033 and JP 10-307029) clearly fails to teach or suggest the feature of "a vibrator including at least a pair of vibrating bodies, in which both end portions in a longitudinal direction are fixed together in the width direction by intermediate parts, and the vibrator is constructed such that a secondary bending vibration with both ends movable in a thickness direction of the vibrating bodies is generated" (emphasis added) as recited in Applicant's claim 1.

In addition, as clearly seen in Figs. 3, 4, 8 and 9 of Fujimoto '033 and in Figs. 5 and 6 of '029, the major surfaces of the vibrating bodies extend in a plane that is **parallel** to a major surface of the substrate. Thus, Fujimoto (JP 8-292033 and JP 10-307029) clearly fail to teach or suggest the feature of "the vibrator is arranged such that major surfaces of the at least a pair of vibrating bodies extend in a plane that is substantially **perpendicular** to a major surface of the substrate" (emphasis added) as recited in Applicant's claim 1.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) over Fujimoto (JP 8-292033 and JP 10-307029).

The Examiner further alleged that Ishitoko et al. teaches each and every feature recited in Applicant's claim 1. However, the Examiner has failed to refer to <u>any</u> specific portions or elements of Ishitoko et al. which allegedly teach all of the features recited in Applicant's claim 1.

Ishitoko et al. fails to teach or suggest any substrate or any relationship between the vibrator 10 and a substrate. Thus, Ishitoko et al. clearly fails to teach or suggest the feature of "the vibrator is arranged such that major surfaces of the at least a pair of vibrating bodies extend in a plane that is substantially <u>perpendicular</u> to a major surface of the substrate" (emphasis added) as recited in Applicant's claim 1.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Ishitoko et al.

Serial No. 10/660,563 January 18, 2005 Reply to the Office Action dated September 15, 2004 Page 10 of 10

Accordingly, Applicant respectfully submits that Fujimoto and Ishitoko et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in Applicant's claim 1.

In view of the foregoing amendments and remarks, Applicant respectfully submits that Claim 1 is allowable. Claims 2-20 depend upon claim 1, and are therefore allowable for at least the reasons that claim 1 is allowable.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

To the extent necessary, Applicant petitions the Commissioner for a One-month extension of time, extending to January 18, 2005, the period for response to the Office Action dated September 15, 2004.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted.

Date: January 18, 2005

Attorneys for Applicant

Joseph R. Keating Registration No. 37,368

Christopher A. Bennett Registration No. 46,710

KEATING & BENNETT LLP 10400 Eaton Place, Suite 312

Fairfax, VA 22030

Telephone: (703) 385-5200 Facsimile: (703) 385-5080